

Osterholm Update Live (March 23, 2021)

Chris Dall: [00:00:05] Hello and welcome to the Osterholm Update: covid-19, a weekly podcast on the covid-19 pandemic with Dr. Michael Osterholm. Dr. Osterholm is an internationally recognized medical detective and director of the Center for Infectious Disease Research and Policy, or CIDRAP, at the University of Minnesota. In this podcast, Dr. Osterholm will draw on more than 45 years of experience investigating infectious disease outbreaks to provide straight talk on the covid-19 pandemic. I'm Chris Dall, reporter for CIDRAP News, and I'm your host for these conversations.

Chris Dall: [00:00:42] Hello, everyone, and welcome to another live episode of the Osterholm Update: covid-19, a podcast from the Center for Infectious Disease Research and Policy. I'm your host, Chris, and over the next hour, I'll be posing your questions about the covid-19 pandemic to Dr. Osterholm. If you haven't already, you can send your questions to us on Twitter using the hashtag #OsterholmUpdateLive. We'll start this episode of the Osterholm Update, as we usually do with Dr. Osterholm's welcome and dedication and his views on the current state of the pandemic, then we'll start taking your questions and we'll try to get to as many as possible. So, Mike your opening thoughts on this, our third live episode of the Osterholm Update?

Michael Osterholm: [00:01:19] Well, thank you, Chris, and thank you to all of you who are listening live right now. Good morning. Good evening. Good afternoon. To all of those who'll be listening in the days ahead, we know that thousands of people ultimately listen to this podcast. And we want to thank you very much for being here. As I say, every week with real sincerity, as we know, you have many, many choices to get your information on covid-19. And we just appreciate you being with us and being part of this podcast family, which it truly has become over the past year. At this point, let me just say that it's been a journey. A little over a year ago, Maya Peters, who many of you know from her work with this podcast, as well as Cory Anderson, convinced this old guy here that he needed to think about upgrading his communication activities as related to the pandemic. For years, as many of you know who have followed this podcast, letters have been a very important part of my life, often handwritten. And then, of course, I did emerge into the new modern world of email, and as there's days that sometimes I wish I hadn't, but in fact, I got there. But they were about to convince me that the only way I could really communicate and hear from all of you would be via podcast. And I didn't

even know really what they were talking about. And it was just a little over a year ago, March 10th of 2020, that they were able to secure a spot for me on the Joe Rogan podcast, March 10th, 2020 of which I did do that podcast. And it was a remarkable experience to know that ultimately over 15 million people downloaded that podcast. At that point, as some of you know, we were already well into our work with the pandemic, having stated on January 20th that we thought that this was going to be the next global pandemic. And I even wrote an op ed in The New York Times on February 22nd stating the very same case. So by the time we got to March, there was a sense, on our part, that- what are we waiting for? We've got to move on and get ready to do that. I share with you a perspective tonight because it helps set not just the tone of where we've been over the past year, but where are we going in the future? On the Joe Rogan podcast on March 10th, I stated that I believe that there could be upwards of four hundred and eighty thousand deaths associated with this pandemic. At that time, that was not only seen extreme, but many would consider it to have been irresponsible to scare people so badly. As many of you know, today we're actually at five hundred and forty three thousand deaths in this country, far exceeding even what I had stated. I also stated that we'd be in this for many, many months, that, in fact, it was not going to be just a few months and then we'd be out of it like people thought Ebola or other kinds of national, international public health issues work. And as you know, here we sit some 12 months later and we're still there. So tonight, I'm going to share with you again a sense of the future. As Mark Twain, or at least it was attributed to him, once said, "It's difficult to make predictions, particularly about the future." And I think that's what we have owed you from the beginning, is an attempt to basically not talk about just today or next week. But where is this going? What is it going to look like? And how can we respond to that in such a way that it means we can protect our families, ourselves, and we can move forward in what has been a very, very difficult, tragic year. I make absolutely no excuses for the fact that we all can do better. In public health, I, others, my colleagues could do better. And we're learning, I think, how to do better. And tonight, I hope that as we have this discussion, you'll see we're trying to learn and do better. As I've said to you many times, ask people where they get their information, what data do they have to make certain statements and check it out. I don't care who it is, including me. And tonight, that will be no different. Let me just kind of put a footnote into all of this. Tonight will mark our 52nd podcast. We've had 48 regular podcasts, three special ones, two live ones, one in August and one in October. And then on June 3rd, we actually did one on masks and science. And I went back this past week and listened to that. And it's remarkable

the nuancing we were trying to share with you back in June of last year is still very, very much a very safe and real recommendation for what we need to do today. So today is our 52nd podcast, as I said, and we'll keep doing these until this pandemic is done. We'll be here. We are so fortunate to have you here with us. The communications we get from you is so remarkable. It becomes almost a full time job just reading the incoming mail and we love it. So please don't stop. And it's in that regard. I make the dedication tonight that dedication is to you. We're dedicating this podcast to all the listeners. The people who become part of the Update podcast family. And I say that with real honor and real sincerity. Thank you for what you do to stay with us. Now, if you're a podcast family member, you know, no introduction is complete without a little comment about light. It's getting better. Now, we're not meeting one week after our last podcast. Obviously, we post on Thursday mornings, today here we're a little early relative to the podcast, so we're not quite at a seven day mark. But today, the podcast here in Minneapolis/St. Paul, not the rest of the world but here, we will have 12 hours and 19 minutes and 52 seconds of daylight. What a remarkable change. That is, in fact, an increase of fifteen minutes and forty five seconds since last week. And so we're excited to continue to see the light coming. It's going to only get better and better. For our friends, colleagues and family members in the Southern Hemisphere, as I say each week, we're sending light to you. And in a couple of months, unfortunately, we're going to need you to help work with us. But hang in there. The light's coming. And we're very excited about that. So let me just conclude by saying at this point, thank you again so much for being here. And let's get on with the show, Chris.

Chris Dall: [00:07:54] So, Mike, as you noted, it's been a year since we started this podcast and we're in a very different place than we were during our two previous live episodes, which were in the summer and the fall. So the US is now averaging around fifty three thousand new covid-19 cases a day. The vaccine rollout continues to pick up steam, but we've essentially hit a plateau after several weeks of significant declines and many parts of the country are loosening restrictions. Meanwhile, there's a variant fueled surge in Europe. So what does the current situation in Europe tell us about what we could see in coming weeks here in the United States?

Michael Osterholm: [00:08:30] Well, let me just share right now that we're really in a Tale of Two Cities kind of environment. The first city, which is the optimism with the reduction in cases, which has been real in a major way since January. And we have

vaccine rolling out, a vaccine that is highly effective against most of the strains of this particular virus that we're dealing with, in fact. So let me cover a little bit about the tale of the good city and then add some perspective. As you pointed out, we have had a remarkable rollout of vaccine. Remember, it was 50 days ago that the president indicated he wanted to have one hundred million doses administered in the first hundred days. And we're already 128 million doses. And that is great news. To date, 25.3 percent of the US population has received one dose. 13.7 percent have received the full two doses. The Johnson and Johnson vaccine, which is the single dose, has only limited distribution. So we haven't had so many there as to really make a difference in terms of the number of people vaccinated. When we look at it right now by age, a category that is of real priority for me, not just because I'm in it, but because as an epidemiologist, I look at what is it that causes serious disease, hospitalizations and death, and that's age. And if you look to date, 69.8 percent of those sixty five years of age and older have had one dose and only 43 percent are fully vaccinated. That means right now that we have upwards of 17 and a half to 18 million people sixty five years of age and older who have not had a dose of vaccine yet. Now why that's important is because that it's basically stalled out. We were at sixty eight percent ten days ago and now today we're sixty nine percent. And this is a critical, critical group as we talk about the future cases occurring and how this might impact on us. So while we're providing 2.5 million doses of vaccine a day, please don't forget that really it represents 1.25 million people being vaccinated because with two doses, of course, while we are vaccinating 2.5 million people a day, half of those are people getting their second dose. So, yeah, the vaccine is good news, but we're far, far, far at this point from achieving the kind of protection that we need to really have a population based impact on transmission. I can't urge you more strongly than to get your vaccine if, in fact, you have the ability to do so. Get it. As far as new cases and what's happening here, as I've shared with you on this podcast before, remember that that big peak we saw in January? No one can tell you exactly why that happened. Why did it go up so dramatically and why did it come down so dramatically? I've seen many of my colleagues will say it's seasonality. They'll say it's because of prevention activities were taken. And none of those are absolutely true at all. When you look at the seasonality, the states that contributed to most significantly to that January peak were from the southern Sunbelt states, from Southern California to Georgia, and they were the same states that contributed the cases in July to the big peak there. If you look at the different hemispheres, northern and southern hemisphere, you'll see again, there's no evidence

of seasonality. I only point this out to you because as I've said multiple times, we need to understand what mitigation strategies or approaches we can take to have an impact on these cases. And when we saw a peak like we saw, there's no question in my mind that the activities we took to reduce the height of that peak were critical, the kinds of things we did in mitigation about the somewhat temporary lockdowns that we saw, a term that, again, I realize for many people is like drinking barbed wire. But nonetheless, it's very important. And right now it's important we maintain that kind of activity in terms of mitigation, even though it appears the cases are down because I can tell you they will come back. If we look at just what's happening on the seven day rolling average in the United States, cases have come down. We're all feeling good about it, like somehow we're in control. Remember, we are not driving this tiger. We are riding it. If you look at the number of cases and the seven day rolling average, there's been a 1.8 percent increase in new cases as of yesterday. That was compared to the previous seven day rolling average a week ago, 9.5 percent decrease in cases. So almost a 10 and a half percent turnaround just in the last week. If you look at testing, the number of tests completed, about three hundred and sixty million tests completed down from what we were testing as we were in the height of the activity in December/January. But what's important is the positive rate is now at 4.7 percent. A week ago, it was at 3.3 percent. The positive rate has turned around. Now hospitalizations and deaths continue to drop. That's good news. But we know that those are lagging indicators. And as lagging indicators, we know that they don't turn up for weeks after activity itself turns up. I would say right now we are on the verge of seeing that potentially very serious uptick in cases. If we look at the B.117 variant, something we've talked about many times here, this is the variant originally discovered in the United Kingdom. It's one that's been associated with anywhere from 50 to 70 percent more infectiousness, also associated with 50 percent or more increase in serious illness and now impacting on all ages from young children all the way through to the elderly, frail. And when we look at what's happened with B.117 in the US, just as it's happening around the world, the numbers have continued to increase as a part of the number of viruses circulating in the United States. CDC is reporting as of March 21st, six thousand three hundred ninety cases have been confirmed in fifty one jurisdictions. Just mind you, that's up from forty six hundred and ninety a week before. So an increase almost of fourteen hundred cases in just one week. Now, I would agree that we're still flying blind and in a very real way this shouldn't be reflective of what is actually happening with B.117. I think it's actually much more significant than even our lack of proactive sequencing on a major scale is providing us.

If we look, however, though, what's happening, let me just give you some examples of areas to look at. Remember, we've talked all along about the regionalization of cases in the United States. And I, for the life of me, can't tell you why that's happening. And anybody that can, again, be very careful about what they're providing you. Ask them for why, their database. As you may recall, the upper Midwest actually had an increase in cases around Memorial Day of last year. And then we saw activity dropped precipitously in July/August, only to start up again in October. And our peak in November in this country was largely made up of North and South Dakota, Minnesota, Wisconsin, Iowa, Michigan, those states there. And then that peak drop substantially before we saw the southern states again turn on fire a second time. Well, if we look at the same kind of geographic pattern right now in the upper Midwest, if we look at five particular states, Michigan, Minnesota, South Dakota, North Dakota and Wisconsin, it's interesting if you look at vaccination rates. If we have anywhere from percentage wise of 14 to almost 19 percent of the population fully vaccinated, and if you look at what's happening in terms of these states, in terms of doses administered, it's really quite remarkable. Yet if you look at the actual cases and look at the seven day increase, in Michigan a 47 percent increase in cases. Minnesota, 22 percent increase in cases. South Dakota, 26 percent increase in cases. North Dakota, 12 percent increase in cases. And Wisconsin, 6 percent. This looks all far too familiar of what we saw last fall/early winter. If you look at the Northeast. Again, five states there, same thing. If you look at the fully vaccinated population, it's 14 to almost 18 percent of the population with a substantial number of people having single doses. Yet if you look at Connecticut, 15 percent increase in cases in the last seven days. New York, 13 percent increase. New Jersey, six percent increase. Massachusetts, 12 percent increase. Maryland, 11 percent increase. Again, a regional uptick that's of real concern. If we look at the seven day moving averages for cases, in other words, if you pick any one day, any variability could really affect that whether it's how many cases get reported, what kind of testing was done, etc.. But if you look at the rolling seven day average, we have been looking at that every Monday for the past few weeks in this country. Three weeks ago, 14 states out of the 50 states and the District of Columbia reported seven day moving average increase in cases. The others were either level or decreasing. 14. Two weeks ago, that was 21. Last week, it was 24. This Monday, it was 27. These are all should be trends that should concern us greatly as to what's happening. Particularly as we see this overlay of the B117 about to actually spread even faster and further. If we look at what's happening in Europe and try to understand what does that mean for what might happen here? You've heard me time

and time again on this podcast talk about this particular variant spreading widely in parts of Europe. Let me just say, I think Chancellor Merkel said it very well yesterday from Germany. This I quote, yesterday, 'basically in a new pandemic' because of B117 and its characteristics. That's what she said. They have seen the rate increase substantially there in Germany. It was at 10.2 cases per day in Germany last week. This week, it's at 13.3 and rising. They are in an extended period of lockdown, with strict lockdown over the Easter weekend. The prevalence of B117 is over 75 percent of the cases. They have an active vaccination program going on, although not as significant as the US. Same thing is true for France. If you look at what's happening here, they have gone up from 24.1 thousand cases, 24 thousand cases a day last week. This week is at 31.5 thousand cases. Estimated there again, B117 is over seventy five percent of the cases. Poland: the previous high in mid-November at their peak was 25.5 thousand. Today, the seven day average is 22 thousand cases, up from 16 thousand cases just the week before. The B117 prevalence there is eighty percent of cases. As you can see in Europe, and I could go through country by country, they are writing the script for us. The one exception, and there is a major exception that we have to note, besides the vaccine, which we are surely doing a better job in this country, we are the one country in the world that is opening up faster than ice melting in a sauna. It's crazy. I don't know how else to describe it. But it's what we want. I understand the issues around how horrible it has been to live with this pandemic, how we want to get back to normal. How the case data should tell us it's OK to get back to normal. How if you're an elected official, how hard it is to anticipate this kind of situation when all the numbers seem to be in the right direction and the situation is vaccines come coming. But vaccine isn't coming fast enough. It's not. We're not going to see a big expansion of vaccine availability for at least weeks yet. We will. Eventually, we will. And I think the summer is going to be a very wonderful time that way. But we're a ways off. B117 is here. These numbers are beginning to rise. And I feel like it's a deja vu all over again moment. And while we surely have people protected, remember that we still have at least 50 to 55 percent of our country's population who have neither had covid-19 and have any residual protection from natural infection or who have been vaccinated. With all the pain and suffering and all the cases we've had, all the efforts to vaccinate the population, we still have over half the population susceptible to this virus. And now we're beginning to see because, and we'll talk about this more in a moment, younger age populations, including young adults into middle age adults, have a higher proportion having serious illness if we look at what's happened in Europe. And that even includes younger

children. So I think the message here to share with you, Chris, is that this is the tale of the other city. I understand the enthusiasm for why things are getting better. I understand why people want to loosen up everything. But we are creating the perfect storm moment. If Europe is having this many challenges with B117 and they have roughly the same number of people that have been infected over time as we've had. They are not as far along on vaccine, but not far when you think of only 15 percent of our population being vaccinated anyway. And look what's happening there. So I would leave it tonight by saying that, please, for the people on this podcast, you do not want to be the person who dies five days before they were scheduled to get their vaccine. You don't want to be. If we can get through this increase in cases, this surge, I really believe that we, in fact, will have a much better chance with this B117 and vaccine availability to actually be very effective against it. But for now, we're in a period, I think, of heightened vulnerability, unlike maybe anything we've had in the pandemic to date in this country. So I would leave it with that. And I know that's not the news people want to hear, but it's the news you have to hear. And, you know, this is part of the future. This is part of looking at where we're going. This is part of understanding what we can do to protect our loved ones. We're not asking right now for months and months. But we're asking people to say, if you haven't been vaccinated you do not want to put yourself in harm's way.

Chris Dall: [00:24:20] So, Mike, this leads me to our first question from Twitter, Gopher Fan asks, "Have you downgraded your Category Five hurricane warning yet?"

Michael Osterholm: [00:24:30] Well, first of all, let me just be really clear when I'm talking about this hurricane phenomena, it applies to the United States, but it applies to the world. And when we talk about the pandemic, one of the challenges that I keep seeing us having is, in fact, what's happening worldwide. And what does that mean? Because the pandemic is not just in the United States. And if you look at what's happening here, I am convinced we're going to see this big uptick in cases. How big it will get, I don't know. But on a worldwide basis, we're still primed for a Category Five hurricane. Let me just share with you again a sense of perspective. As of today, there have been 123,400,000 cases reported worldwide. Now, we know that's a major underestimation or reporting of actual number of cases. There have been 2,719,000 deaths. But if you look at the relative proportion of reporting of cases, on January 4th when the cases peaked worldwide, we actually saw at that day that, these are weekly

numbers by the way, March 23rd today is for the last week. On January 4th for the previous seven days, there were 5,049,229 cases reported. 905,000 deaths. Then the cases dropped off globally, just like they did in the United States. Hard to imagine seasonality if that's the case in terms of many parts of the world. On February 15th, for the week prior to that, there were 2,491,000 cases. So compare that to the 5,049,000 cases before. There were 274,000 deaths. Compare that to the 905,000 in the January 4th week. Big drop, major drop in transmission and cases. But March 15th we are now at 3,316,000 cases and 266,000 deaths for the week prior to March 15th. We're coming back up. We've gained almost 825,000 cases since the low point in February. The last four weeks we've had consecutive increases in cases globally. And if you look what's happening in Asia, you look what's happening in Europe, you look what has happened in Africa, you look what's happened in the Americas, you can see what we're up against. Throughout the last week, almost 10 days now, covid-19 has been the number one cause of death in the Americas. Last week, it was accounting for a third of all the deaths in the Americas. A third. So when I talk about the pandemic and this Category Five, this is coming back. And we're not going to have a vaccine for the world. This pandemic is not done with us yet. And I worry that people are very parochial in their views, thinking that, well this pandemic isn't a problem in my house anymore, in my neighborhood or my workplace. And that may very well be true if you have a sizable number of people vaccinated. But as I have stated repeatedly on this podcast and as I wrote about in a Foreign Affairs article two weeks ago, what I worry about desperately is what's going to happen in low and middle income countries over the course of the next year to two years. Transmission will continue largely unfettered. We, at best, have right now potential to maybe vaccinate 20 percent of the low and middle income countries over the upcoming months. If you want to look at variants, they're going to come spinning out that are going to have an impact potentially on our vaccine efficacy. That's the place you need to look. That's where they're going to come from. So even trying for us to get through this pandemic, even if we were to take all the vaccine in the world and hoard it for ourselves, we're still vulnerable if we see these variants that may, in fact challenge vaccine efficacy. This is going to be a problem. So I still stand by the fact that I think globally this pandemic is far from over and it surely still could be a Category Five hurricane. This dip we saw in cases from January to February to now is not going to continue. Vaccine is only going to have a very limited impact globally. And what we're seeing now with the spread of the variants with increased transmission, increased serious illness and a broader spectrum of the population, I think we have a challenge

ahead of us. And this is something that we can't just ignore for our country standpoint. One of the things some of us are working on very, very hard is to try to make sure we get vaccine to low and middle income countries. It's not just a humanitarian issue right now. It is that, but it's more. It's about strategically protecting the vaccines that we do have for the months and years ahead.

Chris Dall: [00:29:42] So, Mike, we do have a few questions on vaccines, but before we get to those, I want to ask you briefly to touch on the AstraZeneca Oxford University vaccine, because it's been in the news a lot in the past weeks. From the concern over blood clots among European vaccine recipients to some encouraging US Phase 3 trial data that was released this week but is now being questioned. What should people make of all this news about the AstraZeneca vaccine?

Michael Osterholm: [00:30:10] Oh, my. You know, in a modern era of vaccinology with large pharmaceutical companies who are very experienced at dealing with the study of, the evaluation of, the approval of, the distribution of vaccines, it's hard to imagine a company, even as with their academic partner, Oxford, could stumble and commit as many unforced errors as they have done. Whether it was about the accidental dosing issue that occurred early in their studies, whether it's been the debates with the European Union and availability, whether it's been challenges to just how well the vaccine works. The issue, I think, with the blood clots was a very unfortunate one in that at this point, the data surely don't support a major problem with that. In fact, it likely reflects background, although we have to keep an open mind to that. And pharmacovigilance for the study of these vaccines is very, very important to make sure that if there is a signal there, we catch it. But as I've pointed out last week, and I'll point out again, we would expect to see in the United States on any one given day the number of people vaccinated, 10 to 20 of these individuals developing blood clots within the next two to three days after vaccination just by chance alone. It has nothing to do with the vaccine. So the challenge is, when is it possibly something really due to the vaccine above and beyond the background? So AstraZeneca got dragged into that. At this point, the EMA, the FDA of Europe, and the WHO have basically said, "Go ahead. The safety signals that we've seen and the challenges do not merit stopping using the vaccine." So I think at this point, it's just fair to say that this recent dust up with the data monitoring board from the NIH and the portrayal of what their data really means is really unfortunate. I say that because I think it creates this idea that there should be

challenges to all the vaccines. Vaccine confidence is eroded when they say, "Well, wait a minute, this company has got this problem, this is happening." And so I hope for all the world that we not only get an effective, safe vaccine from them to use for the world, but that also they're able to, in a sense, get their act together so that we don't keep having these unforced errors that cause these public relation nightmares and giving people a sense that maybe we don't know all about these vaccines as we should know. One thing I want to point out on the data monitoring board comment that has happened in the last 24 hours, none of that had to do with safety. It was all about what was the point estimate of the actual protection from the vaccine. And I think that's a really important point to emphasize, it had nothing to do with safety. The safety issues are the same as they were following the review by the European public health authorities.

Chris Dall: [00:33:23] Just reminding everyone this is a live episode of the Osterholm Update podcast, and if you want to send to send us a question, you can tweet us using the hashtag #OsterholmUpdateLive. We're going to try and get to as many questions as possible. So, Mike, we have a question about vaccines here from Erin on Twitter. She writes, "I'm eligible for the vaccine, but I'm young and my state has a major limit for appointments. Should I feel guilty for trying to get one, assuming I might be taking it away from someone more in need or should I go for it?"

Michael Osterholm: [00:33:51] Well, at this point, we actually have an interesting challenge developing, and I don't think it's what most people perceive. I'm very concerned about the number of states that are opening up completely all their vaccine eligibility. And I say that not because I don't want people to get vaccinated. I do want those at highest risk to get vaccinated. But I'm really concerned about the fact that many of these states that are opening up are not doing so just out of the goodness of their hearts, or somehow they want to help everybody. They actually have vaccine available that should be going to high risk people in those states that are not getting vaccinated. A recent survey from the Kaiser Health Foundation showed almost 50 percent of health care workers in this country have not yet been vaccinated. A third of US military servicemen and women have not been vaccinated or refused to be vaccinated. We can go study after study looking in the BIPOC community among essential workers. There's been huge challenges getting people vaccinated. And so what a number of states are doing that are opening up are basically saying, "Well, I don't want to be sitting here with extra vaccine I haven't used, boy, that won't look good. So let's just open it up to

everybody knowing that we're missing high risk people." The example I just gave you earlier, looking at the sixty eight to sixty nine percent of people sixty five years of age and older who have had one dose or more, that hasn't budged in almost a week and a half. And so, yes, we want to get vaccine to these high risk people, but it's going to take programs to go and get them. To basically help them understand what we know about these vaccines. We've done a very, very poor job, largely describing these vaccines. They were created by Operation Warp Speed with a military presence. And there may have been a political thumb on the approval scale, which wasn't true, but the perception is there. And then they're mRNA vaccines, this genetic material, maybe they are of some concern? All the misinformation that's been out there about side effects, including for pregnant women causing sterility. We've been up against a lot of the negative messaging that in every case, we have an incredible story to tell. And so we've got to do a much better job and we've got to reach out to populations that need support. We've got to take the vaccine to the people that can't get to where the vaccine is currently being delivered. And so in this case, if your vaccine is available and it's not being used, I'd tell you to go get it. Get it, OK. But if we could target those sixty five years of age and older, we'll save more lives as B117 increases. Again, I look at those 17 to 18 million people who are sixty five years of age and older who don't have a drop of vaccine yet. Those people are at really increased risk for B117, for serious illness, and death. So, get it. I hope more states aren't opening up to everybody, not because I don't want you all to get it. I want everybody to be vaccinated. But I want the people who are at highest risk of dying, highest risk of serious illness and hospitalization and overrunning our health care systems, those are the people right now that we really need to address.

Chris Dall: [00:37:08] So here's another question that we're getting a lot of, and this is from Sarah on Twitter. She writes, "What do we know about if we all need vaccines annually for covid like we do for the flu?"

Michael Osterholm: [00:37:20] We don't know. There's a lot we don't know about these vaccines yet. First of all, number one, how long will they protect? Will it protect for months? For years? What happens if we get re-exposed? Does that then help us have a boost and we don't need to be given a booster dose as often? What happens with these variants? I'm going to mention here at this point, you know, the P1 variant that we've seen in South America, the B1351 variant we've seen with South Africa and its first identification there. These are all challenges yet that we don't really have answers

for. Now so far, the good news looks like even with these variants, it may have an impact on the immune protection from either vaccine or from natural infection, while they may not prevent illness, it appears at this point they are still pretty good at preventing serious illness, hospitalization and deaths. But we don't know that yet. We really are going to over time be learning about these. So I wish I could tell you what's going to happen in a year. Just stay tuned. And I think that at this point, this is being carefully studied, it's being looked at. There are people who are already working on the idea of second and third generation vaccines that might very well provide us even additional protection against some of the variants. So I wish I knew the answer. For now, I think if B117 is all that's circulating here in North America to any real degree, we're going to do fine with the vaccines and we can have a summer that could be quite amazing. If we in fact see variants of concern that do impact on immunity start to spread and do have some impact on transmission, serious illness and ultimately on the protection of the vaccine, then we're going to have some additional new challenges that we're going to have to address. And for me to tell you right now what those are, it would just be irresponsible.

Chris Dall: [00:39:20] So now let's get to another big story within the last few days, and that's been the CDC's decision to update school guidance. The CDC now says that for most elementary and middle schools, three feet of distance rather than six is sufficient when masks are worn properly. So Cher, one of our viewers, wants to know what is your take on this decision?

Michael Osterholm: [00:39:43] Well, this is one of my oh my nights, OK. Because this is another oh my issue. I think this was actually a very poor move on the part of the CDC, and I do not support it at all. Let me just take a step back. Anyone who has been listening to this podcast over months knows that I very, very carefully have been following and in fact, am even involved with issues around the safety of children and teachers and staff in schools. And I, for one, was a strong proponent in support of kids, particularly K through eight, going back to school. We saw very little evidence of transmission between kids or kids to teachers or teachers to children. And there was something it almost appeared somewhat innate in terms of the transmission or lack thereof in this age group. And at that point, it was obviously one where we still wanted to make sure we had as many safety features in place as possible, but we at this point said you can go do that. Now, we've all along, many of us, and if you've been listening

to this podcast again you know that aerosols play a very important role in the transmission of this virus. Aerosols, those tiny little droplets that float in the air like cigarette smoke. They travel long, long distances. I never understood even the six foot issue of saying you're protected. Now to say three feet? That is just unimaginable in terms of what we can anticipate protection. But having said that, if kids aren't transmitting, doesn't matter whether, you know, they're an inch away from each other. So what's different now? What's different now is B117. Absolutely challenging. We are seeing substantial transmission in young children right here in Minnesota. We have school based outbreaks right now where youth sports are playing a huge role in moving it from school to school, town to town, and then spill over from kids to adults. This is being seen in other areas of the country. You can't handle school safety in the same way with B117 that you did before that time. So it's to me such a major game changer that we have to really reconsider what we're doing. And again, let's be clear, a face cloth covering, we've shared this with you many times, can reduce your exposure, but only for a limited time. So if I have 50 percent leakage in and out of a face cloth covering, I may get 50 percent less dosage for a period of time if the virus is in the air. But as we've shown you time and time again, it's all about dose. And dose is time. If you put kids together in rooms for four or five hours, now you double the number, where I'm sure you're not increasing ventilation two fold. You have just created a much more rich place for this virus to be transmitted. So I think that this is a mistake. I think that we will be, once with B117 spreading more widely in our communities, relooking at this issue. I think we're going to need to pivot quickly. And this is not a failure of somebody screwed up. Three months ago, I was on that side saying, get kids back to school, losing this school is really unfortunate. It's a challenge. It's a challenge for the lack of learning, socialization, you know, the whole psychological development of the child, the issue of parents working, I get all of that. And I know how important that is. But now we have got a game changer in here with B117. And so again, the kids are not going to transmit any more effectively than adults, but now we're seeing kids transmit. There will be more illnesses in children. Still, I believe the majority will be in the minor scale in terms of severity. But at the same time, not all. And most importantly, they will serve as an important source of the virus in our communities. So let's just see what happens in a couple of months. I just don't want to have to do that same old, same old of pumping the brakes on the car after you wrap it around the tree, which we're really good at doing in this country. We need to respond to the potential for school based transmission with B117 now. And this is coming from a strong school attendee supporter.

Chris Dall: [00:44:17] So here's another question about vaccines, Mike, but it's pertinent to the discussion about children in schools. Amy wants to know when we should know if the Moderna and Pfizer vaccines, and I guess the Johnson and Johnson vaccine as well, can be expanded to younger children.

Michael Osterholm: [00:44:33] Studies are ongoing right now in children down to 10 years of age. I expect that results will be available for at least one, if not two of the vaccines by July. And it's very possible by early next fall with school year, we'll actually have vaccines approved down to 10 years of age. Studies are commencing right now down to six month old infants. And those are going to be further off. But they, too, are being done right now and hopefully sometime next fall or early winter, there will be sufficient data to address that, both from a standpoint of how well they work and their safety. We don't anticipate it being a problem, but it's really important to get these specific data for these ages. So hold on, folks. Vaccines are coming for the kids.

Chris Dall: [00:45:19] So, Mike, we're getting some questions here about basically how we can start living our lives now among some of the people out there who are vaccinated, Ryan on Twitter asks, "Would it be safe for our fully vaccinated friends and family to meet and hold our four month old baby? We are also fully vaccinated and eager to introduce Ellis Marie to a select few outside of our bubble. What would be your suggestion?"

Michael Osterholm: [00:45:46] Well, first of all, understanding that the family is fully vaccinated, don't waste a minute. Get together. I think right now I couldn't say it any more clearly. Now, if you have children who can't be vaccinated and have been around anyone who may have been potentially infected and this is going to get more challenge will B117, then you've got an issue there. But otherwise, I think get together. Now, when you say you want to share this precious new gift with friends again, are they vaccinated or not? If they're not, you can get together on the recommendation of CDC right now with one other family and do that. I think that we'll have to see over the course of the next few weeks what happens with B117. But otherwise, I think we should take every opportunity as much as we can to get vaccinated. And so when you get vaccinated, everybody get together. I'm already planning parties that I want to attend or have at my home with multiple couples, all of us vaccinated, no mask, having the time of our life

making up for lost time. And that's where vaccine is such an important part of our response right now.

Chris Dall: [00:47:02] Just reminding everyone that this is a live episode of the Osterholm Update podcast, and if you want to send us a question, you can tweet us using the hashtag #OsterholmUpdateLive. And we're trying to get to as many questions as possible. So, Mike, here's another question about kind of where we're going and the future. @SuziK2021 wants to know if you think we'll be wearing masks and practicing social distancing throughout 2021 and into 2022.

Michael Osterholm: [00:47:27] I hope not. I hope not. And it's going to all depend on two things. One, will the majority of our population get vaccinated? And by majority I'm talking about seventy five plus percent or more. If not, we will continue to see transmission in our communities that will continue to occur, that will continue to be a challenge. And these vaccines are not going to be perfect. Remember, 90/95 percent protection is really remarkable. That's not a hundred percent. We know already in the frail elderly and those older, we may see even a more significant number of people who will still get infected even after having two doses. So the way we protect ourselves is also the way we help protect the community, get vaccinated. So this is going to be a challenge to see what happens in the course of the next months in terms of vaccine. The second thing is the variants. You know, if we have a variant of concern that has a ability to compromise immune protection of these vaccines, then that's going to create a totally new public health consideration. And I think at this point, we just don't know what that means. I'm planning on, I'm hoping for life back to a new normal. I so badly want to take my kids to a ball game, feel safe being, you know, around crowds, etc. We want to get there. But these unknowns, unfortunately, are still in front of us.

Chris Dall: [00:49:02] So, Mike, I'm going to go back to another question about vaccines, because we're just getting a lot of questions about them. And this kind of gets to the hesitancy issue. Here's a question we have from Kevin, who just got his first dose of the Pfizer vaccine. Kevin writes, "Instead of feeling relieved, I feel very anxious that I just put something in my body that could possibly have negative long term effects. Is there anything you could add to this for me? Are there indications of long term safety?"

Michael Osterholm: [00:49:28] Well, Kevin, you're not alone. A lot of people who don't really fully understand what these vaccines might mean, how they're made, what they do for us have the same feelings you have. So, first of all, you're not alone. But the good news is you don't have to feel that way. What this vaccine does for you in terms of avoiding getting covid-19 and potentially dying from it is such a remarkable gift. It's like any of the really critical vaccines that we've had over the course of public health history that have saved millions and millions and millions of lives. That's what this vaccine is doing. So congratulations, what you did. Get your second dose when it comes time. And feel the confidence and the relief that you've done everything you can at this point to prevent yourself from getting covid-19. And I would not worry at all about this idea that you've done something harmful to yourself. You've not. You've been a soldier against covid-19.

Chris Dall: [00:50:35] We have a question here from Claire on Twitter who asks, "Will it be safe to travel this summer?"

Michael Osterholm: [00:50:41] This is going to be a challenge in the sense that, first of all, travel where? At this point around the world, we're seeing more of these other variants showing up, the ones that may actually be of concern with regard to the immune protection of the vaccines. We still have to sort all that out. Here in the United States, that still may be the case. We'll see some of that. But I think generally speaking here, until that happens, it's safer to travel. But again, it's not perfectly safe. Remember these vaccines are almost perfect, but not quite. And so if you're in environments where there's lots of cases potentially in that environment going to a big wedding and few people are vaccinated, etcetera, then you may still have a challenge. So at this point, I'd say travel is going to get safer and safer over time as more people get vaccinated. And it's almost going to be an individual situation where you go, who you're with, how you get there. That's going to be the big the big challenge. But I hope we get back to travel. I have to say personally, for me, it's been a remarkable year. Up until last March, a year ago, I would fly one hundred and fifty thousand air miles a year with my work in international areas. And all I've done in the last year is zero air miles and one hundred fifty thousand hours of Zoom.

Chris Dall: [00:52:10] You talked about the variants a lot on this episode of the podcast, Mike. George on Twitter has a question- have we seen an increase in serious disease with B117?

Michael Osterholm: [00:52:22] Absolutely. Globally, there is a number of papers that have come out even two just recently this past week, demonstrating the increased occurrence of severe illness associated with these virus, the B117 viruses. So, yes, there's no question about the increased severity.

Chris Dall: [00:52:41] And then this is another B117 question from MNGal on Twitter. She writes, "Is it realistic to expect cloth masks to prevent the spread of B117 among students and staff?"

Michael Osterholm: [00:52:54] As I addressed earlier, again, remember, respiratory protection starts at the entire systems level, air ventilation, that's why outdoors is so much better than indoors, and all of the environmental issues you can address to reduce the potential for exposure. But then when you get down to respiratory protection at the individual level and you look at the kind of protection, we've talked about this a number of times, you have the n95 respirators where you have roughly less than one percent leakage in or out of these small particles that could transmit or you could be infected by in terms of that air leaking in and out. Then you get into surgical masks, medical masks. We have increasing data, and in fact, a beautiful paper published just recently in the Clinical Infectious Disease Journal showing how you get leakage with surgical masks or medical masks. While they may have 50 to 60 percent protection, they're not 100 percent. And then when you get into cloth face coverings, you may get as much as 70 percent leakage, meaning 30 percent protection. But that's also with time. We often don't talk about that. Somehow it's as if there is this idea that the number is a static number and it's effective through whether you're there for five minutes or you're there for five hours. If you're in a room with a large number of individuals and multiple people are infected and you're close together, there will be lots of virus that will be in the air and you will in a face cloth covering inhale some of it. Or if you are infected, you will exhale some of that virus in your breathing. And just, at this point, you can't get around that. That's just straightforward and simple. So I think that that's why we're going to be constantly looking at school safety and understanding that, you know, it was a

very different ballgame when kids themselves rarely got infected or did they ever transmit the virus when they got infected. This is a different ballgame now with B117.

Chris Dall: [00:54:56] And then one last variant question here, Mike, this is from JM on Twitter. We've talked a little bit about the California and New York variants on the podcast the last few weeks, JM wants to know, "Will the New York variant make the vaccine ineffective?"

Michael Osterholm: [00:55:10] At this point, there's still a lot of questions about the New York variant. My understanding is in the next day, they're going to actually be addressing this publicly in New York, actually suggesting that the B1526 variant is actually decreasing in it's occurrence in New York and other of the sars-cov-2 virus, particularly B117, are increasing. At this point, I have not seen any data, not to say that it doesn't exist or that it hasn't yet been fully obtained, showing a reduction in protection from vaccine with this variant. But it does have the mutation that we're concerned about with that very piece. Does the virus actually evade the immune protection from either vaccination or previous infection and immunity related to that? So stay tuned. We just don't know at this point. But this, again, is another one of those examples of four months ago, you know, we would never have thought about or anticipated this very situation.

Chris Dall: [00:56:14] So, Mike, as many of our Osterholm Update listeners know, this is around the point of each episode where we highlight a pandemic act of kindness. Mike, who is getting the spotlight tonight?

Michael Osterholm: [00:56:26] Well, this is actually a very interesting, remarkable act of kindness. Akash wrote to us and in a very, very kind, thoughtful way, really gave this to all of us, this is a gift not only to CIDRAP, but is an act of kindness to everyone on here. And he wrote, "Michael, thank you for the wonderful podcast, it's been an amazing resource for me in a time when clarity is scarce. I love your segment where you talk about the increasing amount of light as we head into spring and summer. It is definitely a cause for joy. As a landscape photographer, I wanted to share with you and all of the listeners a few of my favorite moments of light. I hope you enjoy it. And thanks again." I have to tell you, the seven photographs that he shared with us are simply remarkable, they're stunningly beautiful and he took all of them. There are going to be posted on our Osterholm Update website here on this one, you can go take a look at them. And I know

it will bring joy and just oohs and ahs when you see these. So thank you very, very much for this gift. And we appreciate it more than I can say. And I urge you all to go take a look at it.

Chris Dall: [00:57:41] And there will be a link to those photos in the YouTube live stream for all of you who are watching. So we're just about near the end of our hour here, Mike. So your closing thoughts tonight?

Michael Osterholm: [00:57:53] Well, again, thank you very much for being with us. It's gone very quickly. We never have enough time to really discuss all the issues. I hope there's been some information shared tonight that can be helpful to you. I just want to say at the outset, again, you know, we're getting close to that magic moment of having adequate vaccine for everyone. And if B117 is the only virus we're really up against in any meaningful way, we can see a much, much brighter day. And so hang in there. Again, I can't say this any more clearly, no one wants to be the person to die three days before they're scheduled to get their vaccine. So let me leave you with a couple of things. First of all, I want to go back and urge all of you, if you haven't looked at last week's podcast, to go look at the mended heart pendant that's made by jeweler Karin Jacobsen here in Minneapolis/St. Paul. This is an incredibly beautiful piece in honor of all that's been done to respond to covid-19. She specifically made it just for that and all the proceeds, one hundred percent of the proceeds, are going to the Frontline Families Fund, that fund that we helped start to take care of the families of health care workers who have died of covid-19. So I urge you to go back to last week's podcast. And if you haven't looked at this pendant, you have to. It is remarkably beautiful and it's so meaningful. So let me just close tonight on how I started. I talked about how I went from a letter to an email to a podcast. I've now been brought into the modern world of podcasts. Thank you, Maya. Thank you, Cory. First, thank you to you. Thank you to Angela Ulrich, who also is one of the very critical members of our podcast team. But I'm going to go back and be an old man. I'm going to go back and reminisce a bit. I'm going back to the letter. I actually read on September 17th, on the 24th episode, Long Haulers, I closed with a song by Bruce Springsteen and the E Street Band. It was a song that just struck me immediately. It's so beautiful. And it was actually the title track for his new album. This was actually recorded on September 10th of 2020. It was released on October 23rd and it is such a meaningful piece to me and it says everything about why I again do these podcasts and what I get from them from you. So here it is,

Letter to You by Bruce Springsteen and the E Street Band. "Neath the crowd of mongrel trees, I pulled the bothersome thread, got down on my knees, grabbed my pen and bowed my head, tried to summon all that my heart finds true and send it in my letter to you. Things I found out through hard times and good, I wrote them all in ink and blood. Dug deep in my soul and signed my name true, and sent it in my letter to you. In my letter to you, I took all my fears and doubts. In my letter to you, all the hard things I found out. In my letter to you, all that I found true. And I send it in my letter to you. I took all the sunshine and rain, all my happiness and all my pain, the dark evening stars and the morning sky of blue. And I sent it on my letter to you. I sent it in my letter to you. In my letter to you, I took all my fears and doubts. In my letter to you, all the hard things that I found out. In my letter to you, all that I found true. And I sent it in my letter to you. I sent it in my letter to you." For the last year, every week I send you a letter. I've tried my best to do it in a way that can be helpful, but surely I know can be challenging. But also allows us all to come together and respond to this pandemic, not just the virus, but all the other aspects of the pandemic. It's why the acts of kindness have been so memorable, so important. It's why we remember every time we have a podcast, those deaths are not numbers, they are people. They're somebody's mom and dad. They're somebody's brothers and sisters. They're somebody's aunt and uncle. And unfortunately, in some cases they're some people's children. That's what this is about. This is our letter and I send this letter to you. Thank you very much for joining us again tonight. Chris, thank you, as always. Thank you to the CIDRAP podcast crew. And most of all, as I've dedicated this evening session to you, the podcast family. Thank you very much. Be safe, be kind and know that we're going to get through this together. Thank you.

Chris Dall: [01:03:20] And thanks again to everyone who turned into this live episode of the Osterholm Update and to those who sent us questions. And special thanks to podcast producers Maya Peters, Cory Anderson and Angela Ulrich for making all this happen. We'll be back next week with another episode. Stay safe, everyone.